

AMENDMENTS TO THE CLAIMS

The following is a complete listing of revised claims with a status identifier in parenthesis.

LISTING OF CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for producing at least one optical grating on an optical conductor, comprising:

~~durably~~ fixing the conductor at a first temperature at least at two fixing points, arranged at a distance from one another; and

producing the grating on the fixed conductor between the fixing points when the temperature of the conductor falls below a temperature at which degradation or deformation of the grating occurs.

2. (Previously Presented) The method as claimed in claim 1, wherein the optical conductor is stress-free between the fixing points during the production of the grating.

3. (Previously Presented) The method as claimed in claim 1, wherein the optical conductor is stressed between the fixing points during the production of the grating.

4. (Currently Amended) An arrangement, comprising:

a carrier body;

an elongated optical conductor; and

an optical grating, wherein the conductor is fixed at a first temperature at least at two fixing points arranged at a distance from one another, on the carrier body, wherein the grating is formed on the fixed conductor between the fixing points, wherein the conductor is ~~durably~~ fixed on the carrier body at the fixing points, and wherein the grating is a grating which is produced after the ~~durable~~ fixing of the conductor on the carrier body and below the temperature at which degradation or deformation of the grating occurs.

5. (Previously Presented) The method of claim 1, wherein the at least one optical grating is a Bragg grating.

6. (Previously Presented) The arrangement of claim 4, wherein the optical grating is a Bragg grating.

7. (New) The method of claim 1, wherein the temperature at which degradation or deformation of the grating occurs is 150°C.

8. (New) The method of claim 1, wherein the conductor is freely

suspended between the fixing points.

9. (New) The method of claim 1, further comprising producing at least two optical gratings on the conductor.

10. (New) The method of claim 10, wherein the at least two optical gratings on the conductor are produced simultaneously or sequentially.

11. (New) The method of claim 10, wherein the at least two optical gratings on the conductor are produced spatially separate from one another or superposed on one another.

12. (New) The arrangement of claim 4, wherein the temperature at which degradation or deformation of the grating occurs is 150°C.

13. (New) The arrangement of claim 4, wherein the optical conductor is freely suspended between the fixing points.

14. (New) The arrangement of claim 4, wherein at least two optical gratings are produced on the optical conductor.

15. (New) The arrangement of claim 16, wherein the at least two optical gratings on the optical conductor are produced at least one of simultaneously, sequentially, spatially separate from one another and superposed on one another.

16. (New) A system for producing at least one optical grating on an optical conductor, comprising:

fixing means for fixing the conductor at a first temperature at least at two fixing points, arranged at a distance from one another; and

producing means for producing the grating on the fixed conductor between the fixing points when the temperature of the conductor falls below a temperature from which degradation or deformation of the grating occurs.

17. (New) The system of claim 16, wherein the optical conductor is stress-free between the fixing points during the production of the grating.

18. (New) The system of claim 16, wherein the wherein the at least two optical gratings on the conductor are produced at least one of simultaneously, sequentially, spatially separate from one another and superposed on one another.

19. (New) An optical grating produced by the method of claim 1.

20. (New) An arrangement, comprising:

a carrier body;

an elongated optical conductor; and

an optical grating produced by the method of claim 1.